



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER OF PATENTS AND TRADEMARKS  
Washington, D.C. 20231  
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/107,787	06/30/1998	JOHN S. BUCHANAN	10000-1	8519

7590 07/24/2002

Joseph C. Wang  
ExxonMobil Research and Engineering Company  
PO Box 900  
Annandale, NJ 08801-0900

[REDACTED] EXAMINER

BUSHEY, CHARLES S

ART UNIT	PAPER NUMBER
1724	20

DATE MAILED: 07/24/2002

Please find below and/or attached an Office communication concerning this application or proceeding.

## Office Action Summary

<b>Application No.</b>	<b>09/107,787</b>	<b>Applicant(s)</b>
<b>Examiner</b>	<b>Art Unit Scott Bushey</b>	<b>1724</b>

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) Responsive to communication(s) filed on 04 January 2002 and 26 March 2002.
- 2a) This action is FINAL.                    2b) This action is non-final.
- 3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) Claim(s) 11 and 12 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) Claim(s) \_\_\_\_\_ is/are allowed.
- 6) Claim(s) 11 and 12 is/are rejected.
- 7) Claim(s) \_\_\_\_\_ is/are objected to.
- 8) Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) The specification is objected to by the Examiner.
- 10) The drawing(s) filed on \_\_\_\_\_ is/are: a) accepted or b) objected to by the Examiner.  
 Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) The proposed drawing correction filed on \_\_\_\_\_ is: a) approved b) disapproved by the Examiner.  
 If approved, corrected drawings are required in reply to this Office action.
- 12) The oath or declaration is objected to by the Examiner.

### Priority under 35 U.S.C. §§ 119 and 120

- 13) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) All b) Some \* c) None of:
1. Certified copies of the priority documents have been received.
  2. Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.
- 14) Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) The translation of the foreign language provisional application has been received.
- 15) Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

### Attachment(s)

- |  |  |
|--|--|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892)                               | 4) <input type="checkbox"/> Interview Summary (PTO-413) Paper No(s). _____ . |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)           | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)  |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____ . | 6) <input type="checkbox"/> Other: _____ .                                   |

## **DETAILED ACTION**

### ***Claim Rejections - 35 USC § 102***

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in a patent granted on an application for patent by another filed in the United States before the invention thereof by the applicant for patent, or on an international application by another who has fulfilled the requirements of paragraphs (1), (2), and (4) of section 371(c) of this title before the invention thereof by the applicant for patent.

The changes made to 35 U.S.C. 102(e) by the American Inventors Protection Act of 1999 (AIPA) do not apply to the examination of this application as the application being examined was not (1) filed on or after November 29, 2000, or (2) voluntarily published under 35 U.S.C. 122(b). Therefore, this application is examined under 35 U.S.C. 102(e) prior to the amendment by the AIPA (pre-AIPA 35 U.S.C. 102(e)).

2. Claims 11 and 12 are rejected under 35 U.S.C. 102(e) as being clearly anticipated by Sheinman (Figs. 1 and 2; col. 2, line 26 through col. 3, line 1).

Applicant should note that the liquid enters the cyclonic device from a tray located outside of the sidewalls of the device. The liquid collects on the tray until it reaches a level equal to the top end of the plenum or downcomer (7), at which time it flows downwardly through (7) to the lower end thereof wherein the liquid exits pipe (7) through the sidewall thereof near the bottom end of the cyclonic region. Applicant should also recognize that outlets (5) arranged in the sidewall of the cyclonic device are provided between the first set of spin devices (11) and the second set of spin devices (12), the second set of spin devices being arranged “substantially at

Art Unit: 1724

the midpoint" of the cyclonic device and occupying about 15% of the elevation of the cyclonic device.

Applicant should note that the amended language of instant claim 11 is essentially equivalent to the language that has been replaced by the amendment. Specifically, claim 11 previously stated that the spin vanes were located "at about the midpoint" of the sidewall, while the amended language states that the spin vanes are located "substantially at the midpoint" of the sidewall. It is the Examiner's position that "substantially" is as broad as "about", especially when used to modify the term "midpoint", which as defined by the 10<sup>th</sup> Edition of Merriam Webster's Collegiate Dictionary as, "a point at or near the center or middle". Clearly since the term being modified (midpoint), by definition is not an exact term, a none exact modifier (either about or substantially) cannot be expected to provide such a pinpoint definition to overcome a reference teaching such as that provided by Sheinman.

***Claim Rejections - 35 USC § 103***

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later

Art Unit: 1724

invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

5. Claims 11 and 12 are rejected under 35 U.S.C. 103(a) as being unpatentable over Sheinman.

Sheinman (Figs. 1 and 2; col. 2, line 26 through col. 3, line 1) as has been applied above substantially disclose applicant's invention as recited by instant claims 11 and 12, except for the spin vanes being located precisely at the midpoint. While the Examiner does not agree that the instant claims require location of the spin vanes precisely at the center point between the ends of the sidewall of the device, it would have been obvious for an artisan at the time of the invention, to modify the location of the spin vanes (12) of Sheinman to be located at any location near to and including the precise center point between the ends of the sidewall of the device, since such would not appreciably modify the operation or purposeful function of the device. Applicant should note that the entire discussion as set forth in paragraph 2 above is incorporated herein by reference.

***Response to Arguments***

6. Applicant's arguments filed January 4, 2002 have been fully considered but they are not persuasive. Applicant's arguments have been fully discussed and rebutted in the rejection statements above.

***Conclusion***

7. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Scott Bushey whose telephone number is (703) 308-3581. The examiner can normally be reached on Monday-Thursday 6:30AM-5:00PM.

Art Unit: 1724

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, David A. Simmons can be reached on (703) 308-1972. The fax phone numbers for the organization where this application or proceeding is assigned are (703) 305-7718 for regular communications and (703) 872-9311 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308-0661.

Scott Bushey  
Primary Examiner  
Art Unit 1724

csb  
July 22, 2002

  
7.22.02